

AMENDMENTS TO THE CLAIMS

1-31 (Canceled)

32. (Currently Amended) A method for detecting a cell in a subject, ~~the method~~ comprising:

- a. administering to the subject a cell that is labeled with a fluorocarbon imaging reagent; and
- b. examining at least a portion of the subject by a nuclear magnetic resonance technique, thereby detecting a labeled cell in the subject.

33-44. (Cancelled)

45. (Currently Amended) An *ex vivo* labeled cellular formulation ~~for administration to a subject, the formulation~~ comprising:

- [[c]]a. a cell; and
- [[d]]b. a fluorocarbon imaging reagent that is detectable by magnetic resonance imaging and that is associated with the cell.

46-56. (Cancelled)

57. (Currently Amended) A method for detecting transplanted cells in a transplant recipient, ~~the method~~ comprising:

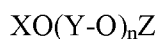
- [[e]]a. administering cells for transplant to a transplant recipient, at least a portion of which cells for transplant are labeled with a fluorocarbon imaging reagent;
- [[f]]b. examining at least a portion of the subject by a nuclear magnetic resonance technique, thereby detecting a labeled cell in the subject.

58-68. (Canceled)

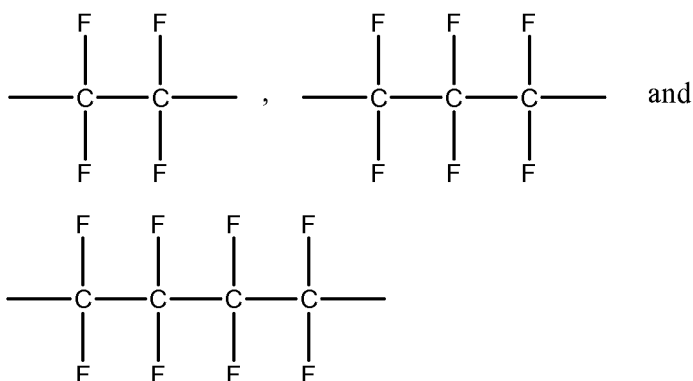
69. (New) The method of claim 32, further comprising contacting the cell *ex vivo* with a fluorocarbon imaging reagent under conditions such that the fluorocarbon imaging reagent becomes associated with the cell prior to step a.
70. (New) The method of claim 32, wherein the fluorocarbon imaging reagent is a perfluoropolyether.
71. (New) The method of claim 32, wherein the cell is contacted with the fluorocarbon imaging reagent in the presence of an uptake enhancing reagent.
72. (New) The method of claim 71, wherein the uptake enhancing reagent comprises a cationic lipid.
73. (New) The method of claim 32, wherein at least a portion of the fluorocarbon imaging reagent is internalized into the cell.
74. (New) The method of claim 32, wherein at least a portion of the fluorocarbon imaging reagent is associated with the extracellular surface of the cell.
75. (New) The method of claim 32, wherein the fluorocarbon imaging reagent is conjugated to a cellular targeting moiety.
76. (New) The method of claim 75, wherein the cellular targeting moiety comprises an antibody that binds to an epitope that is exposed to the extracellular milieu.
77. (New) The method of claim 32, wherein the fluorocarbon imaging reagent is conjugated to an internalization moiety.
78. (New) The method of claim 32, wherein the cell is a mammalian cell.
79. (New) The method of claim 32, wherein the cell is a cell of the immune system.
80. (New) The method of claim 32, wherein the cell is a dendritic cell.
81. (New) The method of claim 32, wherein the fluorocarbon imaging reagent is formulated as an emulsion.
82. (New) The method of claim 32, wherein the emulsion comprises particles having a mean diameter of between 30 and 500 nm.
83. (New) The method of claim 32, wherein the fluorocarbon imaging reagent is a perfluoro-crown ether.

84. (New) The method of claim 83, wherein the imaging reagent is a perfluoro-15-crown-5-ether.

85. (New) The method of claim 32, wherein the fluorocarbon is a perfluorinated polyether having an average formula:



wherein Y is selected from the group consisting of:



wherein n is an integer from 8 to 20; wherein X and Z are the same and are selected from the group consisting of perfluoroalkyls, perfluoroethers, fluoroalkyls terminated with fluoroacyl, carboxyl, amide or ester, methylols, acid chlorides, amides, amidines, acrylates and esters.

86. (New) The method of claim 32, wherein the imaging reagent comprises an additional functional moiety.

87. (New) The method of claim 86, wherein the additional functional moiety is a detection moiety.

88. (New) The method of claim 87, wherein the detection moiety is selected from the group consisting of: a fluorescent detection moiety and a PET detection moiety.